

Notice of Allowability

Application No.

10/529,463

Applicant(s)

YANG ET AL.

Examiner

Anthony J. Green

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the application submitted on 28 MARCH 2005 and Examiner's Amendment 31 MARCH 2006.
2. ☒ The allowed claim(s) is/are 1-10.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

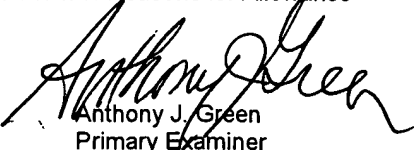
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 03/28/05
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


Anthony J. Green
Primary Examiner
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EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

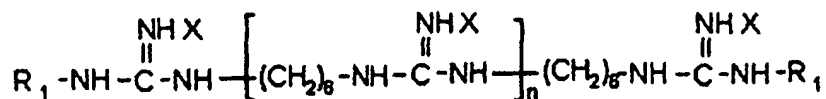
Authorization for this examiner's amendment was given in a telephone interview with Joseph Kolasch on 31 March 2006.

IN THE ABSTRACT:

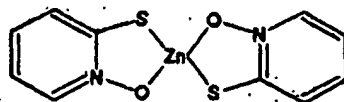
The abstract has been replaced with the following abstract:

A novel antifouling paint composition is disclosed. The antifouling paint composition comprises a resin of 5 to 20 wt%, a solvent of 3 to 30 wt%; a polyhexamethyleneguanidine salt of the following chemical formula 1 of 0.05 to 20 wt%, a pigment of 1 to 50 wt%; and cuprous oxide of 22 to 75 wt% and/or zinc pyrithione of the following chemical formula 2 of 0.05 to 20 wt%;

[Chemical formula 1]:



[Chemical formula 2]:



wherein in chemical formula 1, X can be the same or different, and at least one of X is an inorganic acid salt or an organic acid salt; R₁ can be the same or different,

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and is a linear or branched alkyl group containing from 1 to 20 carbon atoms, a phenyl group, a chlorophenyl group, a bromophenyl group, an iodophenyl group, a benzyl group, a chlorobenzyl group, a bromobenzyl group, a iodobenzyl group, a phenethyl group, a naphthyl group or a hydrogen; and n is an integer of 1 or more.

IN THE CLAIMS:

In claim 1, line 8, the punctuation mark of "." has been changed to -- ; --.

In claim 1, line 9, after "[Chemical formula 1]" the following punctuation mark has been inserted: -- : --.

In claim 1, line 1 after the first formula, after "[Chemical formula 2]" the following punctuation mark has been inserted: -- : --.

In claim 1, line 1 after the second formula, the term "In" has been changed to the phrase -- wherein in --.

In claim 6, line 3, the term "the" has been deleted.

In claim 7, line 3, the term "the" has been deleted.

In claim 9, line 4, the term "the" has been deleted.

In claim 10, line 11, the term "the" has been deleted.

REASONS FOR ALLOWANCE

2. The following is an examiner's statement of reasons for allowance: The prior art of record, which is the most pertinent art found, fails to teach and/or fairly suggest the instant invention. EP 1,033,392 (equivalent to KR2000-62680) teaches antifouling

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compositions that contain a resin, a copper-type antifouling agent such as cuprous oxide, an antifouling agent such as zinc pyrithione, and if required, additives for paint such as a pigment, a plasticizer, and a solvent. KR 2001-64950A teaches that a polyhexamethyleneguanidine phosphate compound provides antimicrobial activity to various resins. Accordingly, it is not considered to be obvious to a person skilled in the art to add the polyhexamethyleneguanidine compound to the European document in the amount specified in the instant claim to create an antifouling paint composition having a composition according to the present invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony J. Green whose telephone number is 571-272-1367. The examiner can normally be reached on Monday-Thursday 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Anthony J. Green
Primary Examiner
Art Unit 1755

ajg
March 31, 2006